#### REMARKS

Claims 1-2, 4-17, and 19 are all the claims pending in the application. By this Amendment, Applicants amend claims 1-2 and 4-17 to cure minor informalities and clarify the invention, and cancel claim 3. The support for the amendments to claims 1 and 15 can be found in the specification, for example, on pages 7-8 and in Figs. 5A and 5B. No new subject matter has been entered.

Claims 1-17 and 19 are objected to.

Claims 1-17 and 19 are rejected under 35 U.S.C. § 112, second paragraph.

Claims 1, 3, 6, 8, 13, 15 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda (U.S. Patent Application Publication No. 2003/0043736) in view of Ikawa (U.S. Patent No. 6,141,320).

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda in view of Ikawa, and further in view of Sugawara (U. S. Patent Application Publication No. 2003/0058789).

Claims 4, 5, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda in view of Ikawa, further in view of Sugawara, and further in view of Ballintine (U.S. Patent No. 6,366,556).

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda in view of Ikawa, and further in view of Mesh (U. S. Patent Application Publication No. 2004/0109408).

Claims 9-12 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda in view of Ikawa, and further in view of Phelps (U. S. Patent Application Publication No. 2005/0088963).

## I. Preliminary Matters

Applicants sincerely thank the Examiner for considering the references listed on form PTO/SB/08 submitted with the Information Disclosure Statement filed October 5, 2004.

## II. Objections to the Claims

Claims 1-17 and 19 are objected to.

Claims 1 and 15 have been amended to alleviate Examiner's objection. It is respectfully requested that the objections to claims 1-17 and 19 be withdrawn.

## III. Claim Rejections - 35 U.S.C. § 112

Claims 1-17 and 19 are rejected under 35 U.S.C. § 112, second paragraph.

Claims 1 and 15 have been amended to alleviate Examiner's rejection.

Additionally, Applicants refer the Examiner to the specification, for example, pages 1 and 3, where the use of the linear MPS N:1 protocol is discussed.

It is respectfully requested that this ground of rejection of claims 1-17 and 19 be withdrawn

## IV. Claim Rejections - 35 U.S.C. § 103

A. Claims 1, 3, 6, 8, 13, 15, and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda (U.S. Patent Application Publication No. 2003/0043736) in view of Ikawa (U.S. Patent No. 6.141.320).

Claim 1 recites among other elements: "providing a first multiframe, mapping the content of the K1 and K2 bytes into a first portion of the POH bytes for each frame of the first multiframe for the end-to-end handling, providing a second multiframe, and mapping the content of the K1 and K2 bytes into a second portion of the POH bytes for each frame of the second multiframe for the intermediate handling."

Gonda describes N:1 protection. (Paragraph 39).

Ikawa describes moving contents of K1 and K2 in the SOH to Z3 and Z4 in the POH.

However, neither Gonda, nor Ikawa, taken singularly or in combination, teaches or suggests at least "providing a first multiframe, mapping the content of the K1 and K2 bytes into a first portion of the POH bytes for each frame of the first multiframe for the end-to-end handling, providing a second multiframe, and mapping the content of the K1 and K2 bytes into a second

portion of the POH bytes for each frame of the second multiframe for the intermediate handling," as claimed in claim 1.

Accordingly, claim 1 and dependent claims 6, 8, 13, and 19 are patentable over Gonda and Ikawa, taken singularly or in combination.

Claim 15 recites features similar to those recited in claim 1. Therefore, claim 15 is patentable at least for the similar reasons as claim 1.

B. Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda in view of Ikawa, and further in view of Sugawara (U. S. Patent Application Publication No. 2003/0058789).

Claim 2 depends on claim 1. Sugawara does not cure any deficiency of Gonda and Ikawa. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 1.

Accordingly, claim 2 is patentable over Gonda, Ikawa, and Sugawara, taken singularly or in combination, at least by virtue of its dependency.

C. Claims 4, 5, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda in view of Ikawa, further in view of Sugawara, and further in view of Ballintine (U.S. Patent No. 6,366,556).

Claims 4 and 5 depend on claim 2. Ballintine does not cure any deficiency of Gonda, Ikawa, or Sugawara. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 2. Accordingly, claims 4 and 5 are patentable over Gonda, Ikawa, Sugawara, and Ballintine, taken singularly or in combination, at least by virtue of their dependencies.

Claims 16 and 17 depend on claim 15. Sugawara or Ballintine does not cure any deficiency of Gonda or Ikawa. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 15. Accordingly, claims 16 and 17 are patentable over Gonda, Ikawa, Sugawara, and Ballintine, taken singularly or in combination, at least by virtue of their dependencies.

D. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda in view of Ikawa, and further in view of Mesh (U. S. Patent Application Publication No. 2004/0109408).

Claim 7 indirectly depends on claim 1. Mesh does not cure any deficiency of Gonda and Ikawa. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 1.

Accordingly, claim 7 is patentable over Gonda, Ikawa, and Mesh, taken singularly or in combination, at least by virtue of its dependency.

E. Claims 9-12 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gonda in view of Ikawa, and further in view of Phelps (U. S. Patent Application Publication No. 2005/0088963).

Claims 9-12 and 14 indirectly depend on claim 1. Phelps does not cure any deficiency of Gonda and Ikawa. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 1. Accordingly, claims 9-12 and 14 are patentable over Gonda, Ikawa, and Phelps, taken singularly or in combination, at least by virtue of their dependencies.

## CONCLUSION

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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# AMENDMENT UNDER 37 C.F.R. § 1.111 U.S. Appln. No.: 10/822,667

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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